

## **Historic, Archive Document**

Do not assume content reflects current scientific knowledge, policies, or practices.



A79  
R31S

AD-33 Bookplate  
(1-68)

**NATIONAL**

**A  
G  
R  
I  
C  
U  
L  
T  
U  
R  
A  
L**



**LIBRARY**

**76917**

**A79  
R31S**

# **SAFE DISPOSAL OF EMPTY PESTICIDE CONTAINERS AND SURPLUS PESTICIDES**

## **RECOMMENDATIONS FOR:**

- **FARMERS**
- **COMMERCIAL PESTICIDE APPLICATORS**
- **CITY, STATE, AND FEDERAL PEST CONTROL  
OFFICIALS**
- **OTHERS WHO USE LARGE QUANTITIES  
OF PESTICIDES**

U. S. DEPT. OF AGRICULTURE  
NATIONAL AGRICULTURAL LIBRARY

JAN 6 - 1965

C & R-PREP.

**Agricultural Research Service**

**UNITED STATES DEPARTMENT OF AGRICULTURE**

**Issued August 1964**



The careful disposal of empty pesticide containers and surplus pesticides is an important part of safe pesticide use. Following safe disposal procedures is vital for those who use pesticides extensively because their errors could lead to serious hazards to themselves and others and to serious contamination of the environment.

"Empty" containers can be a hazard to children and pets. Barrels and drums converted into livestock feed troughs, water storage tanks, or raft floats become sources of contamination of feed and water. If discarded in the line of water runoff, these containers can pollute ponds and streams.

Your responsibility as a pesticide user continues until any empty pesticide containers and any surplus pesticides are disposed of safely and properly.

## GOOD STORAGE PLACE NECESSARY

Keep pesticides and pesticide containers in a separate building or room or in an enclosure. Use this storage area exclusively for pesticides and empty pesticide containers. Buildings or rooms used for this purpose should be dry, ventilated, and under lock and key. Outside storage areas should be fenced in to protect children and animals and to discourage pilferage.

(CAUTION: Do not store weedkillers, herbicides or defoliants in the same room with insecticides. Volatile materials such as 2,4-D and its derivatives can contaminate other pesticides. Chlorate salts can create a fire or explosion hazard.)

Remove only the amount of pesticides needed for one day's operation and be sure to return empty containers--and any unused pesticide--to the storage area at the end of each day.

## DISPOSING OF PESTICIDE CONTAINERS

Disposal methods and necessary precautions will depend upon the type of container and facilities available. Regardless of the disposal plan you follow, however, you can lessen the amount of hazard by:

- Draining any pesticide remaining in the container into a pit dug in sandy soil.
- Rinsing glass and smaller metal containers several times with the diluent being used and including the rinse in your spray.
- Keeping lids and bungs tightened at all times when containers are not being used.



- Keeping all empty containers in a secure storage area until they can be disposed of safely.

Large metal drums can be disposed of most safely and easily by returning them to the supplier or selling them to a cooperage firm equipped to handle toxic materials. Pesticide containers also can be safely disposed of locally at public dumps, incinerators, or private disposal sites.



Chopping holes in empty containers will prevent their re-use.

## Public Dump or Incinerator

Notify the operator of the dump or incinerator of the nature of the material so that he will be able to take any necessary precautions. Before leaving the disposal site, remove lids and bungs, break glass containers and chop holes in the top, bottom, and sides of metal containers with a sharpened pickax. Breaking and puncturing containers will make it less likely that an unauthorized person will remove them from the dump and attempt to convert them to other uses. Containers should be buried at public dumps.

## Private Disposal Sites

If suitable public disposal facilities are not available and containers cannot be returned to a supplier or sold to a cooperage firm, select a disposal site that will be used only for surplus pesticide and pesticide containers. It should not be an area that might later be returned to



cropland or some other use. It should be away from homes, wells, streams, and crops and livestock. Level ground is best because it will let the residue be absorbed through the soil and lessen the chance that it will be carried away in water runoff. Do not locate the site on the watershed of a public water supply or where livestock have access to it.



Containers can be decontaminated by burning.

Combustible Containers: Paper bags, cardboard boxes, and plastic containers should be burned after making sure that smoke will not drift over nearby homes, people, livestock, and the person doing the burning. Pouring used crankcase oil over the containers before lighting them will aid combustion.

(CAUTION: Some municipalities have restrictions against burning. Consult local authorities before burning containers.)

Non-Combustible Containers: Where economical sources of fuel are available, metal and glass containers can also be decontaminated by burning. After removing lids, use a sharpened pickax to chop holes in the top, bottom, and sides of metal containers. Build a heap of scrap wood, dry brush, old automobile tires, or anything else that will make a hot fire. Then place containers on the pile and start the fire.

Heat containers until they are red hot and hold them at that temperature (800° to 1200° F.) for at least 5 minutes.

You can construct your own incinerator for burning small containers from a 55-gallon drum. Remove one end from the drum and punch holes



in the sides, leaving room at the bottom of the drum to hold the fuel. Fuel oil or used crankcase oil will provide complete combustion yet is safe to use if handled carefully.

## But Don't Burn Weedkiller Containers

Do not burn containers which have held weedkillers such as 2,4-D and its derivatives. When these herbicides volatilize, the resulting vapor may damage nearby plants, crops, and shrubbery. Also, herbicides or defoliants containing chlorates may explode when heated.

Dispose of these containers in this manner:

- Break glass containers and chop holes in the top, bottom, and sides of metal containers so they cannot be re-used or collect water. A sharpened pickax is best for this purpose.
- Bury all weedkiller containers to a depth of 18 inches at a safe disposal site or take them to a dump where they will be covered with soil.

Rinsing Procedure: If burning is not possible, a thorough rinsing procedure will eliminate much of the pesticide residue and hazard. Here is the recommended rinsing procedure:

1. Carefully rinse empty container with water and detergent (See table below.) Allow water and detergent to remain in the container for 15 minutes with intermittent agitation. Pour rinse solution into a pit dug in sandy soil.

2. Re-rinse container for another 15 minutes with the same amount of water and detergent. Again pour rinse solution into the pit. Invert container and let it drain for 15 minutes into the pit.

3. Flush drum thoroughly with clean water. CAUTION: Although they may appear to be completely free of residue, these containers should not be used for storing human or animal food or water!

Rinsing Solution for Various Containers		
<u>Container Size</u>	<u>Water</u>	<u>Detergent</u>
5 gals.	2 quarts	2 tablespoons
30 gals.	3 gals.	$\frac{1}{2}$ cup
55 gals.	5 gals.	1 cup

## Supplier or Cooperage Firm

If you plan to turn containers over to the supplier or cooperage firm, tighten the bungs, rinse the drums off with water, and keep them in the storage area until they are picked up. Many of these drums rust rapidly and lose their value after more than one season. So make sure they are collected by the cooperage firm as soon as possible. Growers can contact their pesticide dealers or formulators for the names and locations of established cooperage firms.

## DISPOSING OF SURPLUS PESTICIDES

Surplus pesticides should be kept in the original containers in the storage area until they can be disposed of safely. If surplus pesticides cannot be given to a responsible person in need of such material, they should be poured into a hole dug in the ground and covered with dirt to a depth of at least 18 inches. Observe all precautions recommended for private disposal sites. Do not take surplus pesticides to a public dump or incinerator. Leftover spray mixture should be poured into a pit dug in sandy soil.

Use Pesticides Safely--Read the Label.

Caution: If pesticides are handled or applied improperly, or if unused parts are disposed of improperly, they may be injurious to humans, domestic animals, desirable plants, pollinating insects, fish or other wildlife, and may contaminate water supplies. Use pesticides only when needed and handle them with care. Follow the directions and heed all precautions on the container labels.









